

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

1. (PREVIOUSLY PRESENTED) An optical amplifying apparatus for amplifying wavelength division multiplexed signals, comprising:

a specific wavelength measuring unit that measures the light power of optical signals of a specific wavelength at a measuring point at a position that has no filter in front of said position wherein an optical signal that has not been filtered can be measured at said measuring point;

a total power measuring unit that measures the light power of said optical signals of all wavelengths at said measuring point; and

an output control unit that controls the output of said optical amplifying apparatus based on the light power measured by said specific wavelength measuring unit and the light power measured by said total power measuring unit.

2. (PREVIOUSLY PRESENTED) The optical amplifying apparatus as claimed in claim 1, wherein said specific wavelength measuring unit further comprises a variable-wavelength optical filter.

3. (PREVIOUSLY PRESENTED) The optical amplifying apparatus as claimed in claim 1, wherein

said measuring point is positioned at one of an input stage, an intermediate stage, and an output stage; and

said output control unit, when the light power measured by said specific wavelength measuring unit does not change and the light power measured by said total power measuring unit changes, determines the number of multiplexed wavelengths of said optical signals based on the light power measured by said specific wavelength measuring unit and the light power measured by said total power measuring unit.

4. (PREVIOUSLY PRESENTED) The optical amplifying apparatus as claimed in claim 1, wherein said output control unit, when change in the light power measured by said specific wavelength measuring unit is equal to change in the light power measured by said total power measuring unit, controls the output of said amplifying apparatus based on the light power measured by said specific wavelength measuring unit and the light power measured by said total power measuring unit so as to compensate for the loss of optical transmission path.

5. (PREVIOUSLY PRESENTED) The optical amplifying apparatus as claimed in claim 1, wherein
said measuring point is positioned at an output stage; and
said output control unit controls the output of said optical amplifying apparatus based on the number of multiplexed wavelengths, the light power measured by said specific wavelength measuring unit, and the light power measured by said total power measuring unit so as to compensate a gain gradient of output optical signals.

6. (CANCELLED)

7. (CANCELLED)

8. (CANCELLED)